

A Stout

- Gravity **12.4 BLG**
- ABV ---
- IBU **67**
- SRM **61.3**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **70 C**, Time **10 min**
- Temp **73 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **70C**
- Keep mash **5 min** at **73C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3 kg (55.6%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (18.5%)	79 %	10
Grain	Pszeniczny	0.5 kg (9.3%)	85 %	4
Grain	Special W Weyermann	0.5 kg (9.3%)	70 %	552
Grain	Czekoladowy Castle	0.2 kg (3.7%)	50 %	1773
Grain	Prażona pszenica IREKS	0.1 kg (1.9%)	50 %	3152
Grain	Jęczmień palony	0.1 kg (1.9%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	60 min	15.5 %
Aroma (end of boil)	Citra	40 g	5 min	13.5 %
Aroma (end of boil)	Amarillo	40 g	5 min	8.8 %
Dry Hop	Citra	30 g	7 day(s)	13.5 %
Dry Hop	Amarillo	30 g	7 day(s)	8.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	500 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips Piwowarski	5 g	Mash	---